

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 41 518.ze.sev	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/000278	International filing date (<i>day/month/year</i>) 16.01.2004	Priority date (<i>day/month/year</i>) 23.01.2003
International Patent Classification (IPC) or national classification and IPC B22D 11/128		
Applicant SMS DEMAG AKTIENGESELLSCHAFT		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: <ul style="list-style-type: none"> a. <input checked="" type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of <u>2</u> sheets, as follows: <ul style="list-style-type: none"> <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/	Authorized officer
Facsimile No.	Telephone No.

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International application No.

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Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:
- international search (Rule 12.3 and 23.1(b))
 - publication of the international application (Rule 12.4)
 - international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):
- the international application as originally filed/furnished
- the description:
pages 1-8 as originally filed/furnished
pages* _____ received by this Authority on _____
pages* _____ received by this Authority on _____
- the claims:
nos. _____ as originally filed/furnished
nos.* _____ as amended (together with any statement) under Article 19
nos.* 1-6 received by this Authority on 30.08.04 with letter of 10.08.04
nos.* _____ received by this Authority on _____
- the drawings:
sheets 1/3-3/3 as originally filed/furnished
sheets* _____ received by this Authority on _____
sheets* _____ received by this Authority on _____
- a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. The amendments have resulted in the cancellation of:
- the description, pages _____
 - the claims, nos. _____
 - the drawings, sheets/figs _____
 - the sequence listing (specify): _____
 - any table(s) related to sequence listing (specify): _____
4. This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- the description, pages _____
 - the claims, nos. _____
 - the drawings, sheets/figs _____
 - the sequence listing (specify): _____
 - any table(s) related to sequence listing (specify): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V **Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1 - 6	YES
	Claims	_____	NO
Inventive step (IS)	Claims	1 - 6	YES
	Claims	_____	NO
Industrial applicability (IA)	Claims	1 - 6	YES
	Claims	_____	NO

2. Citations and explanations (Rule 70.7)

Reference is made to the following documents:

D1: GB-A-1 496 467 (VOEST ALPINE MONTAN AG)

30 December 1977

D2: US-A-5 915 843 (MATTERA TED) 29 June 1999

D3: US-A-4 883 369 (JUDE DANIEL ET AL)

28 November 1989

1. Inventive step

Document D1 (or D2 or D3) discloses (the references between parentheses refer to that document) a method (or a roller arrangement) for cooling a roller arrangement of strand guide rollers in a continuous casting plant (see claim 1), the bearings that are introduced being additionally cooled by the coolant.

None of the above-mentioned documents, however, suggests configuring the circuit for the coolant such as indicated in claim 1 (or claim 3) (see fig. 1, "[...] the coolant enters on one side into the bearing housing (2) of the roller arrangement

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

(1), is guided around the bearing (13) introduced into said bearing housing (2) and is then diverted away from the roller arrangement (1'').

Claims 1 and 3 are therefore considered inventive.

Claims 2 and 4-6 are dependent on claims 1 and 3, respectively, and therefore likewise meet the PCT requirements for novelty and inventive step.

The other A documents cited in the search report disclose methods (or roller arrangements) for cooling roller arrangements of strand guide rollers in continuous casting plants, in which, however, the bearings that are introduced are NOT additionally cooled by the coolant.